

Environmental Health Assessment

And

Improvement Plan

Hudson County

2006

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By: Hudson Regional Health Commission

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## The Plan

This plan has been developed by the Hudson Regional Health Commission (HRHC) to identify the most salient environmental issues within Hudson County and to propose a plan to address these issues for CY 2006. The Hudson Regional Health Commission is a regional health commission established pursuant to NJSA 26:3 – 85 et seq., and is the certified local agency for the provision of environmental health services within Hudson County under the auspices of the County Environmental Health Act (CEHA).

## The Community

Hudson County is a densely populated urban community, comprised of 12 municipalities, located in the New York metropolitan area. The County has a population of approximately 607,000 residing in its forty-six square mile area. The County contains 7.2% of the states population but only 0.6% of its land mass. With a population density in excess of 13,000 persons per square mile the County is the most densely populated in New Jersey and is one of the more densely populated counties in the nation. Population densities in some municipalities within the County exceed 40,000 persons per square mile. The citizenry is both ethnically and racially diverse (White non-Hispanic 35.3%, Hispanic American 39.8%, African American 13.5%, Asian American 9.4%). Median household income in the County is \$40,293 with 15.5% of persons below poverty level.

The housing stock of the County is primarily older multifamily residential buildings. 84% of the County's housing units are located in multifamily buildings with the majority of these in structures with three or greater units. Approximately ninety percent of all housing units were constructed prior to 1978 with 1941 being the median year of construction. The County is currently experiencing a boom in new residential and commercial construction, particularly along its easternmost border. Historically, Hudson County has been a center of industrial activity. Given its prime location with regard to transportation routes, waterways, and its proximity to New York City, Hudson County remains a center of industrial, commercial, and maritime activities.

Other than at its border with Bergen County to the north, Hudson County is surrounded by water. The eastern border of the county is the Hudson River. The Hackensack River and the Passaic River make up the county's western border with the Kill Van Kull being its southernmost border.

## Environmental Issues

### Clean Air

Air pollution in Hudson County, not unlike other metropolitan areas is at times the County's most visible environmental issue. It originates from a mix of mobile, area and point sources with a significant contribution from sources outside the County. Though, exceedances of current National Ambient Air Quality Standards (NAAQS) are uncommon, the southern Metropolitan District of which Hudson County is a part, historically experiences 50% fewer good air quality days than the statewide average. Recently, it has been recognized that ozone and particulate matter may pose health risks at levels below those previously set as the NAAQS. In the year 2005 to date, the NAAQS 1 hour average standard for ozone was exceeded on one day compared

to 7 days statewide. The 8 hour ozone standard was exceeded on 6 days as compared to exceedances on 22 days statewide.

Given its small geographic size and high population density, residential, commercial, and industrial operations may be intermixed or abutting one another. This leads to an increase in citizen complaints particularly those related to air pollution. In 2005 to date, the Commission responded to 276 such complaints. HRHC continues to place response to and resolution of citizen complaints as a high priority. Many times these complaints can be resolved in a manner which is satisfactory to the complainants with minimal adverse impact on the entity responsible for the emissions.

The Hudson Regional Health Commission will continue to make compliance inspections of regulated facilities and resolution of citizen complaints its high priority activities with regard to air pollution control.

As a major transportation thoroughfare, Hudson County is notably impacted by mobile sources of pollution, particularly those associated with diesel powered vehicles. Particulate material is generally the pollutant which impacts urban counties such as Hudson disproportionately more than other areas. HRHC will propose to NJDEP that a pilot project to evaluate diesel emission from stationary sources and idling vehicles be implemented.

#### Hazardous Materials / Emergency Response / Homeland Security

Hudson County, with its century old industrial base, has been the site of significant industrial contamination prior to the advent of modern pollution control practices and regulation. Fortunately, in recent decades, the most egregious examples of this contamination have been addressed. Likewise many of the sites of less severe chemical contamination have also been addressed. However, this industrial legacy of chemical contamination remains present at many sites and must be addressed. Despite current pollution control practices and regulation, discharges of hazardous substances due to accidents or mechanical failures still occur, and yet still, there are individuals who choose to ignore or remain ignorant of accepted hazardous substance handling and disposal practices. Thus, the control and prevention of current discharges and the remediation of historic discharges of hazardous substances remain a prominent environmental issue within the County.

The Commission had historically served as the primary hazardous materials response entity within the County. With the evolution of three fire department based HazMat teams, the Commission continues to serve as a key technical support liaison for incidents in which those entities are involved and provides key support for various monitoring and risk assessment functions. The Commission in conjunction with the fire departments has obtained substantial equipment suitable for the identification and characterization of many of the chemical and or biological agents that may be employed in a domestic terrorist attack. Equally important is the ability to distinguish a real threat from a hoax or release of a more benign agent. Even perceived threats or hoaxes enact a significant toll on the function of our society and have placed severe demands on public safety resources. Public health and environmental health personnel with appropriate resources can clearly support the activities of those charged with public safety.

The Commission will continue to maintain a well trained hazardous materials response staff that works closely with fire department based Hazardous Materials teams. Since 2003, the existing fire department based Hazmat teams; Bayonne, Hoboken, and Jersey City have entered into interlocal agreements with the Commission and have agreed to conduct their operations under the auspices of the County Environmental Health Act. The fire department hazmat teams and the HRHC continue to conduct joint preparedness planning and training. All teams and HRHC recently underwent an audit by the NJ State Police Hazardous Materials Response Unit with a very good outcome.

The Hudson Regional Health Commission maintains an intimate working knowledge of the majority of facilities utilizing and transporting hazardous substances in Hudson County. Some of these materials can be classified as “extremely hazardous” and if released in substantial quantity could pose a grave threat to the citizens of Hudson and adjoining counties. Such facilities, in the current circumstance, could reasonably be viewed as potential targets of terrorist activities. The Commission works cooperatively with LEPCs and Public Safety personnel on the identification of these facilities; evaluation of the magnitude of the threat posed to the population; and the identification of measures that may be implemented to mitigate these threats. The HRHC feels that more resources should be allocated to this task and is prepared to increase its ongoing activities if appropriate resources are allocated.

#### Excessive Noise

As is the case with air pollution, the close interface of residential, commercial, and industrial operations may lead to an increase in citizen complaints related to excessive noise. Excessive noise is, perhaps, one of the most vexing environmental stressors an individual may experience. The prevention of excessive noise and its resolution where it exists will likely always remain an ongoing environmental issue in the urban environment that needs to be addressed with vigilance. The Commission will continue to work closely with local government officials and building owners to address noise issues both proactively and in response to citizen complaints.

#### Clean Water

In recent years there has been resurgence in the recreational uses of the rivers and harbors within the County. Much of the recreation is non-contact such as the use of larger power and sailboats. However, one can now find kayak and canoe rental facilities along the area waterways, and jet skiers “buzzing” the Statue of Liberty are not rare. The fact that these waterways are being used for recreational purposes had been somewhat ignored. A water-quality monitoring program, to gather baseline data was conducted in 2001 and 2002 but was not funded in subsequent years. The project had provided useful information regarding water quality in the area and determined that the bacteriological quality of the area waterways is generally good with the exception of periods for 1 to 2 days after rainstorms. In 2006, the Commission intends to restart this program with the support of the County of Hudson and the Hudson County Bacteriological Laboratory. Further monitoring is necessary to better quantify this phenomenon and it is hoped funding can be provided for this purpose as well as to initiate a public information campaign to recreational users of the areas waterways.

#### Solid Waste Management

The Commission conducts a solid waste management program to ensure solid wastes are

disposed in an environmentally sound manner. The Hudson County Improvement Authority acts as an authorized CEHA agent of the HRHC for this program and conducts extensive field activities in addition to HRHC to achieve this goal. All activities are coordinated between HRHC and HCIA. Solid waste complaints received from citizens and NJDEP are promptly investigated. Compliance inspections are conducted of those facilities and haulers that transport, process and dispose of solid waste. Compliance inspections are also conducted of the various types of recycling facilities. A recent development has been the development of solid waste transfer operations by various railroad entities. These activities are conducted without many of the environmental controls that would be required if these activities were conducted and a properly authorized solid waste facility. NJDEP was asked to become involved with the matter which is currently being evaluated by the Office of the Attorney General. HRHC and HCIA will continue emphasize proper management of solid waste as the primary program objective for 2006.

#### Underground Storage Tanks

The HRHC has conducted two types of programs, both pilot projects, with regards to underground storage tanks. The first is a voluntary compliance assistance project designed to aid homeowners who have leaking underground tanks. In most cases HRHC is able to oversee the closure and remediation process and the homeowner benefits by not having to pay oversight costs to NJDEP. HRHC intends to continue this program in 2006 at a level that is consistent with the funding received from NJDEP to do so.

HRHC has also conducted detailed compliance inspections at facilities such as gasoline service stations which have regulated underground storage tanks. Hudson was one of 6 counties chosen to conduct this program on a full time basis with NJDEP. The program is presently fully implemented with 57 inspections of regulated facilities conducted to date in 2005. Unfortunately, a total of 64 violations have been detected. The majority have been corrected while enforcement is being coordinated with NJDEP for the remainder. HRHC intends to continue the UST compliance program in 2006.

#### Pesticides

The improper use of pesticides particularly in densely populated areas has the potential for adverse impacts upon those exposed. With this in mind, the HRHC intends to continue participation in the optional pesticide control project. The program is focuses on ensuring that pesticides are applied by licensed applicators in accordance with regulations and safety procedures. HRHC intends to continue this program in 2006.

Additionally, concern have been raised, particularly in urban areas, regarding the sale of unregistered and illegal pesticides. These materials are generally imported and are not labeled or not approved for safe and efficacious use. As part of a pilot project HRHC will conduct a number of investigations in the last quarter of 2005 and will continue the program in 2006 if authorized by NJDEP.

#### Open and Effective Government

The Commission views its collaborative efforts with both its governmental partners as well as the general public as a prime responsibility. The Commission will continue to expand and enhance its relationships with local and county officials, emergency planning groups and LEPCs.

No less important is the continued provision of assistance and information to individuals, citizen groups, environmental commissions and the regulated community as requested.

#### Resources and Partnerships

Currently, Hudson Regional Health Commission maintains a staff of twenty-three with 7 FTE being dedicated to its environmental control programs. The remainder of the staff have and will continue to support the environmental control programs as necessary. The Hudson County Improvement Authority (HCIA) and the commission have an interlocal agreement that delegates the HCIA authority to conduct certain solid waste enforcement activities. Likewise, interlocal agreements are in place with three fire department based hazardous materials programs.

These resources have been adequate to conduct mandated program activities. While certain program areas certainly warrant expanded activities, in general, a significant expansion cannot be conducted without the funding to provide for staff and equipment to conduct the activity. Overall, funding for personnel to conduct environmental health programs has remained static for close to a decade. Given steadily increasing costs, stable funding has resulted in a net decrease in essential personnel over time.

Ongoing issues that need to be addressed with enhanced funding or reallocation of priorities:

The Hudson Regional Health Commission recommends that the NJDEP consider the development of pilot or other projects that will provide sufficient funding to allow evaluation of the listed concerns.

**Hazardous Air Pollutants:** Programs that result in better assessment of toxic air pollutants as well as enhanced enforcement of regulations that will control such emissions are warranted. These areas include:

- Tetrachloroethylene emissions from dry cleaners and their potential for impact on those living and working immediately adjacent to such sources as is the case in densely populated urban areas needs to be more thoroughly addressed. This concern has been identified in prior plans (2003, 2004, 2005).
- There is no air monitoring program for hazardous air pollutants (HAPS) in Hudson County. Such programs are generally limited statewide, but the collection of data with regard to actual levels of HAPS is certainly warranted given the fact that modeled contaminant concentrations are elevated for a number of compounds of concern.
- Idling diesel vehicles continue to be a major concern in urban areas. Enhanced outreach and enforcement programs conducted by CEHA agencies

**Surface Water Monitoring:** Bacteriological monitoring of surface water was conducted as a pilot project in 2001 and 2002. These data provided the initial steps to build a body of evidence which would influence policy regarding recreational uses of the area waterways as well as the communication to the public of periods when contact with surface waters should be especially minimized. Funding to resume and expand this program is certainly warranted.

## Mercury

The illicit sale and use of certain pesticides in some urban communities has been recognized as a priority area of concern. Perhaps equally disturbing is the superstitious use of mercury in certain communities where it is believed to “bring good luck” or “ward off evil”. In this practice mercury may be sprinkled around a household or “burned” in candles, resulting in the distribution of mercury in the home and the environment. Cases of “mercury poisoning” have been documented in the scientific literature from spills of mercury associated with these practices. Based on conversations with individuals familiar with the practices, mercury or “azogue” as it is called is used and is available within portions of the County. This issue is unlikely to be endemic to Hudson and certainly warrants a special project to evaluate the extent of these practices, the potential hazards posed, and the development of measures to control the practices in a religious and culturally sensitive manner.